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MODIFIED BERLESE FUNNEL FOR COLLECTING THRIPS

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A simple, fast, and economical method of collecting thrips from parts of various host plants by the use of modified Berlese funnels was used at the Florence, S. C., laboratory during the summer of 1939.

Twelve ordinary 8-inch tin funnels are supported on a home-made wooden rack consisting of a top and bottom board held in place by wooden blocks, similar to the racks used in chemical laboratories (fig. 1). The top board has 1-inch holes bored at 8-inch intervals to receive the funnels. It should be of the proper height so the neck of the funnel will extend into the vial about an inch. Ordinary wide-mouthed vials that fit snugly, but not tight enough to stick or break, were found most satisfactory. Drops of solder are placed at several places around the outside of each funnel about an inch below the rim to prevent the rubber band, used for holding the cloth cover, from sliding down.

Operation.--Owing to the size of the funnels, comparatively small samples of host material must be used. These samples are carefully clipped from the plants, placed in paper bags, and transferred to the funnels within a short time. The funnels are then placed in the racks over the vials, which have been partly filled with 70-percent alcohol, and are covered with pieces of black cloth extending well down the sides and held in place with rubber bands. The rack is set in direct sunlight, and 2 days' exposure is usually sufficient to dry the plant material and drive the thrips into the vials. The plant material is then removed from the funnels and the cloths are washed and replaced over the funnels. The contents of the vials are poured upon the dampened cloth, where the alcohol strains through, leaving the thrips to be removed with a camel's-hair brush. Either light or dark colored thrips can be seen on the black cloth in direct sunlight.

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Figure 1.—A series of modified Berlese funnels set in the rack ready for operation.

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